

REMARKS/ARGUMENTS

Claims 1-14 were presented for examination and are pending in this application. In an Official Office Action dated June 10, 2009 claims 1-14 were rejected. The Applicant thanks the Examiner for his consideration and addresses the Examiner's comments concerning the claims pending in this application below.

Applicant herein amends claims 1, 12, 13 and 14 and respectfully traverses the Examiner's prior rejections. No claims are currently canceled and no new claims are added. These changes are believed not to introduce new matter, and their entry is respectfully requested. The claims have been amended to expedite the prosecution and issuance of the application. In making this amendment, the Applicant has not and is not narrowing the scope of the protection to which the Applicant considers the claimed invention to be entitled and does not concede, directly or by implication, that the subject matter of such claims was, in fact, disclosed or taught by the cited prior art. Rather, the Applicant reserves the right to pursue such protection at a later point in time and merely seeks to pursue protection for the subject matter presented in this submission.

Based on the above amendment and the following remarks, Applicant respectfully requests that the Examiner reconsider all outstanding rejections and withdraw them.

35 U.S.C. §103(a) Obviousness Rejection of Claims

Claim 1, 2, 4, 5, 7, 10, 12 and 13 stand rejected under 35 USC § 103(a) as being unpatentable over "A Flexible Rake Receiver Architecture for WCDMA Mobile Terminals" by Harju et al published in Digital and Computer Systems

Laboratory, Tampere University of Technology, Tampere, Finland March 20-23, 2001 ("Harju") in view of U.S Patent Application Publication No. 2002/0037027 by Medlock ("Medlock"). Claim 14 stands rejected under 35 USC 103(a) as being unpatentable over Harju in view of Medlock, in further view of U.S. Patent 6,788,731 by Kim ("Kim"). Applicant respectfully traverses these rejections based on the aforementioned amendment and the following remarks.

The U.S. Patent and Trademark Office ("USPTO") has failed to establish a *prima facie* case of obviousness. In KSR the court reaffirmed the *Graham* factors in the determination of obviousness under 35 U.S.C. § 103. See *KSR International Inc. v. Teleflex Inc.*, 127 S.Ct.1727 (2007). Specifically, the obviousness analysis is based on four underlying factual inquiries, the well-known *Graham* factors: (1) the scope and content of the prior art; (2) the differences between the claims and the prior art; (3) the level of ordinary skill in the pertinent art; and (4) secondary considerations, if any, of nonobviousness. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966); *Kegel Co., Inc. v. AMF Bowling, Inc.*, 127 F.3d 1420, 1430, 44 USPQ2d 1123, 1130 (Fed. Cir. 1997). The court in KSR did not reject the fact that the prior art reference (or references when combined) must teach or suggest all the claim limitations. *Id.* What a reference teaches is a question of fact. *In re Beattie*, 974 F.2d 1309, 1311 (Fed. Cir. 1992) (citing *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561, 1579 n.42, 1 USPQ2d 1593, 1606 n.42 (Fed. Cir. 1987)).

The Federal Circuit has held many times that to establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). "All words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).

Claims 1 and 12-14 each recite, in varying language, “generate after a last sample of the series of samples is received, read and write addresses of the samples in the delay sub-lines from the series of samples of the input signal, so that a read address is equal to a difference between the write address of the single sample in a delay sub-line of the input signal and a delay expressed as a number of sampling periods from the series of delays ... and thereafter to a plurality of demodulators for parallel recombination in a coherent manner...”

The current rejection broadly points to Figure 3 of Harju and the corresponding text as teaching this feature of the claimed invention. Harju appears to describe a Rake receiver architecture that uses a single correlator engine and buffer to store the entire delay spread of the I/Q samples. Each of the tracked multipaths are despread sequentially with codes that are in the same phase. The proposal offered by Harju on page 10 is a single FlexRake receiver that performs correlation operations sequentially by accessing a buffer that serves as a time-sliding window to the received I/Q signals. The stream buffer, according to Harju, stores the input stream and tracks multipath samples with a special addressing method controlled by multipath delay estimates. Thereafter the correlator engine reads the multipath samples from the stream buffer and performs the despread of the multipath components sequentially.

The present invention does not perform sequential desreading. The present invention uses differences between read and write addresses for parallel recombination in a coherent manner. The sequential sample buffer of Harju is distinct from the present invention. As discussed in the second column at page 10 of Harju, “the effective read addresses are calculated by summing two values, the cursor address and an offset value. Each multipath component is read to the Correlator Engine one at a time for desreading. After each processing cycle the

sample buffer cursor and write addresses are incremented, the offset values can be updated, and new I/Q samples are written to the sample buffer. "


The addresses used by Harju to sequentially combine I/Q signals and those generated by the present invention to recombine the information in each sub-line in parallel are distinct. Moreover, one skilled in the relevant art would not turn to a sequential technique of recombination to teach or suggest a parallel recombination technique. The cited references, Harju and Medlock fail to teach or suggest each and every element of the present invention. Reconsideration is respectfully requested.

In view of all of the above, the claims are now believed to be allowable and the case in condition for allowance which action is respectfully requested. Should the Examiner be of the opinion that a telephone conference would expedite the prosecution of this case, the Examiner is requested to contact Applicant's attorney at the telephone number listed below.

No fee is believed due for this submittal. However, any fee deficiency associated with this submittal may be charged to Deposit Account No. 50-1123.

Respectfully submitted,

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